

REMARKS

Claims 8, 13, and 14 were objected to based on informalities. These claims have been amended and the objection should no longer apply.

Claim 10 was rejected under 35 U.S.C. §112. Claim 10 has been canceled and therefore the rejection should no longer apply.

Claims 1, 2, and 10 were rejected under 35 U.S.C. §102(b) based on Simmons et al. Simmons et al. discloses release coatings without disclosing any oxygen content. In order to obtain such release property Simmons et al. prefer PTFE or Teflon (Column 4, lines 26-28) which are not applied by plasma coating as was observed by the Examiner. These coatings thus have properties similar to the ones of the respective bulk polymers, meaning high fluorine content but no oxygen content. As amended, Claim 1 in contrast requires a high oxygen content (10-30 atom %) in the surface of the outer layer. Claim 1 and therefore Claim 2 which depends from Claim 1 are not anticipated by Simmons et al.. Claim 10 has been canceled.

Claims 3-4 and 11 were rejected under 35 U.S.C. §103(a) as being unpatentable over Simmons et al. as applied to claims 1-2. It is respectfully submitted that Claims 3-4, and 11 which all depend from Claim 1 are not obvious in view of Simmons et al. for the reasons set forth above. Simmons et al. seeks to have a “release coating” onto which the hot softened thermoplastic adhesive he uses to bond the fibers together does not stick (claim 1, steps (c)(3) and (g); column 4, lines 29-33; column 5, lines 25-37). This is not the same use as the instant invention as was stated by the Examiner. The “reduction of adhesiveness” of now cancelled claim 10 meant that the coated belt has at the operating temperature of the belt (i.e. at about room temperature) less adhesivity for the transported good than the uncoated belt (page 14, lines 1-6). Simmons et al. thus does not suggest the instant invention from the point of view of their applications either.

Claims 1-5, 7-11, and 14 are rejected under 35 U.S.C. §103(a) as being unpatentable over Simmons et al. as applied to claims 1-2 in view of Hobson et al., Nguyen et

al., and Kieser et al. Simmons et al. discloses release coatings, and in order to obtain such property he needs a coating having preferably the properties of PTFE or Teflon (as discussed above), which is in contrast to amended Claim 1. Hobson et al. does not provide in the passage cited by the Examiner (column 3, lines 40-45) any disclosure of his own concerning plasma coating. Hobson et al. refers to JP-A-05/147163 which does not disclose plasma coating of substrates: JP-A-05/147163 discloses the bonding together of ordinary (not plasma-polymerized) fluororesin and silicone rubber layers using an intermediate polymer layer. Plasma is only used (if used at all) as a surface pretreatment of the fluororesin and before polymerizing the monomer with at least two double bonds coated thereon, to form the intermediate polymer layer (paragraphs 13/14 of JP-A-05/147163). That polymerization may also be carried out without plasma pretreatment, by merely contacting the monomer coating with air, i.e. by trace peroxide (paragraph 15 of JP-A-05/147163). Therefore neither Hobson et al. nor JP-A-05/147163 disclose plasma coatings, much less a plasma coating with the high surface oxygen content of amended Claim 1. Accordingly, it is respectfully submitted that Claim 1 and Claims 2-4, and 11 are not obvious in view of Simmons et al. and Hobson et al./JP-A-05/147163.

It is respectfully submitted that Claim 5 is also not obvious in view of Simmons et al. in view of Hobson et al. because neither Simmons et al. nor Hobson et al./JP-A-05/147163 disclose a plasma coating process (see above) much less a process wherein 1-10 GHz plasma is used as required by Claim 5 as amended. Accordingly, Claims 8 and 9 depending from Claim 5 cannot be obvious from this combination of references either.

Nguyen et al. and Kieser et al. disclose processes and apparatuses for plasma coating. However, Nguyen et al. stresses the absence of oxygen in his coatings (abstract; column 5, lines 60-62) and thus teaches away from amended Claim 1. Furthermore Nguyen et al. only uses rf (radio frequency) plasma (column 2, lines 22-26; column 3, lines 61-62; column 4, lines 17-19 and 59-61; column 6, lines 43 and 58), not 1-10 GHz microwave plasma as required by amended claim 5. Kieser et al. discloses that the substrate to be coated may be a "belt-shaped substrate," and the process they use for this might be similar to an "air-to-air" process (see Fig.

6). Kieser et al., however, has no disclosure on any oxygen content in its coatings; in the sole plasma coating process they exemplified they used acetylene as the monomer and only found “amorphous carbon” as the material of the coating (example 2), i.e., again an oxygen-free coating, contrary to amended Claim 1. Also, Kieser et al. only discloses the use of rf plasma (column 6, lines 46-49; example 1), not 1-10 GHz plasma as required by amended claim 5. Accordingly, adding Nguyen et al. or Kieser et al. to the combination of Simmons et al. with Hobson et al./JP-A-05/147163 does not provide a disclosure closer to the instant claims (as amended) than the combination of Simmons et al. and Hobson et al./JP-A-05/147163.

Claims 1-14 were rejected under 35 U.S.C. §103(a) as being unpatentable over Simmons et al. in view of Hobson et al. and Gleason et al. Simmons et al. discloses release coatings and in order to obtain such property he needs a coating having the properties of bulk PTFE (high fluorine content, low or nonexistent oxygen content, contrary to claim 1 as amended, see above). Also, neither Simmons et al. nor Hobson et al. nor JP-A-05/147163 to which Hobson et al. refers disclose plasma coating of substrates (see above). Gleason et al. then discloses coatings made from CF₂ moieties and which may be made by plasma coating (column 3, lines 24-35). However, Gleason et al. disclose properties similar to bulk PTFE (column 5, lines 58-62), meaning that their coatings again should be essentially oxygen-free. They name “hexafluoropropylene oxide” as a preferred monomer, but state that the coating obtained therefrom has little oxygen, trace oxygen or no oxygen (column 10, line 54 to column 11, line 3; column 11, lines 35-42). Thus, Gleason et al. combined with the other references still teaches away from coatings with high surface oxygen content as required by amended claim 1. Furthermore, Gleason et al. again does not teach the use of microwave plasma of 1 to 10 GHz as required by amended claims 5 and 6; they only use rf (radio frequency) plasma, e.g. of 13.56 MHz (column 11, lines 51-53; column 14, lines 5-7).

With regard to the Information Disclosure Statement and the crossed-out references on the PTO-1449, it is respectfully submitted that Applicants did provide a concise explanation of the relevance of the crossed-out references in items 6 and 7 on page 2 of the

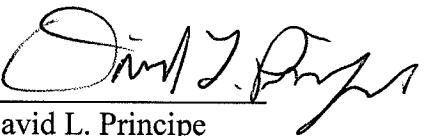
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Transmittal Letter that was submitted with the Information Disclosure Statement. Accordingly, it is respectfully requested that the Examiner consider the references.

It is believed that all of the points raised by the Examiner have been addressed. If any fees are due with this response, Applicants hereby authorize the U.S. Patent and Trademark Office to charge Deposit Account No. 08-2442.

Respectfully submitted,
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